

## **REMARKS**

Reconsideration of the application is respectfully requested in view of the amendment to Figure 3 and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

### **General Considerations**

Applicant notes that the remarks and amendment presented herein have been made merely to clarify the claimed embodiments from elements purported by the Office Action to be taught by the cited reference. Such remarks should not be construed as acquiescence, on the part of the Applicant, as to the purported teachings or prior art status of the cited references, nor as to the characterization of the cited references advanced in the Office Action. Accordingly, Applicant reserves the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

### **Amended Drawings**

The Office Action objected to the drawings under 37 C.F.R. § 1.83(a). The drawings have been revised to be consistent with the specification as requested in the Office Action.

### **Claim Rejections under 35 U.S.C 103**

The Office Action rejects claims 1, 2, 7, 17, 25, and 28 under 35 U.S.C. § 103 as being unpatentable over *Buchwald, et al.*, United States Patent No: 6,791,888 B2 (“888 Patent”).

Applicant respectfully notes at the outset that in order to establish a *prima facie* case of obviousness, the Office Action must demonstrate three criteria: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of

success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143.

Claim 1

In rejecting claim 1, the Office Action states that the “phase data path” recited by ‘888 *Patent* is “the recovered clock as claim because the phase signal 348 includes a series of phase samples also indicative of serial data signal 104.” Applicants respectfully contend that this is a misinterpretation of the ‘888 *Patent* and a “recovered clock.”

The ‘888 *Patent* states that the phase data path “includes a sampling and quantizing signal processing module for sampling and quantizing serial data signal 104 at sample times established by phase sampling signal.” ‘888 *Patent* col. 9 lines 50-55. Thus, the output of the phase data path is not a recovered clock signal, but rather data sampled from the incoming data stream. This position is supported by Figure 23 of ‘888 *Patent* which shows a clock wave (2302), a corresponding serial data signal (2104a), and a “set of time-staggered data and phase sampling signals d0, x0, d1, x1, d2, x2, d3, and x3.” ‘888 *Patent* col. 31 lines 60-67. Inspection of Figure 23 shows that the phase data path consists of data sampled from data stream 2104a at sample times x0, x1, x2, and x3. ‘888 *Patent* Figure 23. Thus, the output of the phase data path would not yield an approximation of the clock wave 2302 nor would it approximate a clock signal since the data represented by 2104a is simply a serial sequence of NRZ symbols. ‘888 *Patent* col. 30 lines 63-64. Finally, ‘888 *Patent* explicitly states that the output of the phase data path is not a recovered clock signal as asserted in the Office Action, but sampled data: “data path 2808a and phase path 2810a each provide serial, quantized, digital data samples...” (emphasis added) ‘888 *Patent* col. 33 lines 22-25.

As discussed above, the burden is on the Office Action to make a *prima facie* case for unpatentability under 35 U.S.C. § 103, which includes showing that the prior art reference teaches or suggests all the claim limitations. Since the phase data path taught in ‘888 *Patent* is not a recovered clock signal, ‘888 *Patent* does not teach or suggest at least one of the limitations recited in claim 1. As such, Applicants respectfully request that the rejection of claim 1 be withdrawn.

Claims 2, 7, 17, 25, and 28

Claims 2, 7, 17, 25, and 28 also include the “recovered clock signal” limitation discussed above. Since the ‘888 *Patent* does not teach or suggest the at least one of the limitations of these claims, Applicant respectfully requests that the rejection of these claims be withdrawn.

**Objection to Dependent Claims**

The Office Action objected to claims 3-6, 8-16, 18-24, 26, 27, and 30 as being dependent upon rejected base claims. In light of the above discussion of the independent claims on which these claims depend (claims 1, 7, 17, 25, and 28), Applicant respectfully requests that the rejection of these dependent claims be withdrawn.

**CONCLUSION**

In view of the foregoing, Applicants assert the claims are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner’s Amendment, the Examiner is requested to contact the undersigned attorney.

Respectfully submitted,  
**BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP**

Date: \_\_\_\_\_

6/20/05



\_\_\_\_\_  
Gregory D. Caldwell  
Attorney for Applicant  
Reg. No. 39,926

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, CA 90025-1026  
(503) 439-8778

**AMENDMENTS TO THE DRAWINGS**

A replacement sheet for Figure 3 has been attached. This sheet replaces the original Figure 3. Figure 3 has been amended to be consistent with the specification. An annotated drawing showing the changes made has also been attached.

Attachment: 1 Replacement Sheet  
Annotated Sheet Showing Changes



# ANNOTATED MARKED-UP DRAWINGS

42390P12278  
PHASE INTERPOLATOR BASED CLOCK RECOVERING  
ROBERT C. GLENN, et al.

1/20

FIGURE 1

